

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| | | |
|--|--|---|
| Applicant's or agent's file reference 32733PC01 | FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below. | |
| International application No. PCT/DK2004/000263 | International filing date (day/month/year) 07/04/2004 | (Earliest) Priority Date (day/month/year) 08/04/2003 |
| Applicant COLOTECH A/S | | |

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 9 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☒ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☒ **Certain claims were found unsearchable** (See Box II).

3. ☒ **Unity of invention is lacking** (see Box III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the drawings,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 3

☐ as suggested by the applicant.

☒ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

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Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
- a. type of material
- ☒ a sequence listing
- ☒ table(s) related to the sequence listing
- b. format of material
- ☒ in written format
- ☒ in computer readable form
- c. time of filing/furnishing
- ☐ contained in the international application as filed
- ☐ filed together with the international application in computer readable form
- ☒ furnished subsequently to this Authority for the purpose of search
2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 6-27 (partially)
because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 6, 8-19, 22,23 and 25-27 are directed to a diagnostic method practised on the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition. Claims 7, 20, 21 and 24 have been searched in as far as in vitro methods are concerned.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

As a result of the prior review under R. 40.2(e) PCT,
no additional fees are to be refunded.

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
7 (partially), 20, 21, 24 (fully)
in as far as in vitro methods are concerned
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☒ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/SA/ 210

Continuation of Box II.1

Although claims 6, 8-19, 22,23 and 25-27 are directed to a diagnostic method practised on the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition. Claims 7, 20, 21 and 24 have been searched in as far as in vitro methods are concerned.

Continuation of Box II.1

Claims Nos.: 6-27 (partially)

Rule 39.1(iv) PCT - Diagnostic method practised on the human or animal body

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G01N33/574

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01N C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, CHEM ABS Data, Sequence Search, WPI Data, PAJ, MEDLINE, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| X | WO 01/64835 A (HYSEQ INC ; LIU CHENGHUA (US); TANG Y TOM (US); DRMANAC RADOJE T (US)) 7 September 2001 (2001-09-07) page 5, line 14 - line 18 page 52, line 33 - page 54, line 28 page 53, line 16 sequence 16528 | 1,2 |
| X | WO 99/04265 A (SAHIN UGUR ; TURECI OZLEM (DE); PFREUNDSCHUH MICHAEL (DE); GOUT IVAN ()) 28 January 1999 (1999-01-28) page 68, line 9 - line 17 sequences 803,804 claim 1 ----- -/-- | 1,2 |



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

5 November 2004

Date of mailing of the international search report

22 NOV 2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
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| A | WO 98/42736 A (HOCHSTRASSER DENIS FRANCOIS ; REYMOND MARC ANDRE (CH); PROTEOME SCIENC) 1 October 1998 (1998-10-01) page 7, line 4 - page 8, line 11 claim 1 ----- | 1,2,7, 20,21,24 |
| X | WO 01/36977 A (MATRITECH INC) 25 May 2001 (2001-05-25) page 9, line 9 - page 10, line 28 ----- | 7,20,21, 24 |
| X | DRAKE RICHARD R ET AL: "SELDI-TOF-MS PROFILING OF SERUM FOR EARLY DETECTION OF COLORECTAL CANCER." DIGESTIVE DISEASE WEEK ABSTRACTS AND ITINERARY PLANNER, vol. 2003, April 2003 (2003-04), page Abstract No. W1334, XP008036316 & DIGESTIVE DISEASE 2003; FL, ORLANDO, USA; MAY 17-22, 2003 abstract ----- | 7,20,21, 24 |
| A | ANONYMOUS: "ProteinChip Arrays: General Purpose Arrays (CM10, WCX2, SAX2, IMAC3, H4, H50, NP20, Au_gold...)" INTERNET ARTICLE, 'Online! XP002298530 Retrieved from the Internet: URL:http://web.archive.org/web/20030202042 309/http://www.ciphergen.com/products/pc/a rrays_cons/arrays/general.asp> 'retrieved on 2003-02-02! the whole document ----- | 7,20,21 |
| A | HE QING-YU ET AL: "Proteomic analyses of arsenic-induced cell transformation with SELDI-TOF ProteinChip(R) technology." JOURNAL OF CELLULAR BIOCHEMISTRY, vol. 88, no. 1, 1 January 2003 (2003-01-01), pages 1-8, XP008036140 ISSN: 0730-2312 abstract ----- | 7,21 |

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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| P,X | ----- WANG YOUNG Y ET AL: "Detection of cancer biomarkers by SELDI proteomics technology from serum in colorectal carcinoma." PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH ANNUAL MEETING, vol. 44, July 2003 (2003-07), page 1262, XP001182938 & 94TH ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH; WASHINGTON, DC, USA; JULY 11-14, 2003 ISSN: 0197-016X abstract | 7,20,21, 24 |
| P,A | ----- ANONYMOUS: "ProteinChip Arrays: General Purpose Arrays (IMAC30, IMAC3, CM10, WCX2, Q10, SAX2, H50, H4, NP20, Au_gold...)" INTERNET ARTICLE, 'Online! XP002298533 Retrieved from the Internet: URL:http://web.archive.org/web/20031204073123/http://www.ciphergen.com/products/pc/arrays_cons/arrays/general.asp> 'retrieved on 2003-12-04! the whole document | 7,24 |
| T | ----- SPRUESSEL ANNIKA ET AL: "Tissue ischemia time affects gene and protein expression patterns within minutes following surgical tumor excision." BIOTECHNIQUES. JUN 2004, vol. 36, no. 6, June 2004 (2004-06), pages 1030-1037, XP008036201 ISSN: 0736-6205 abstract | 7,20,21, 24 |

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Information on patent family members

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